

# @ Perkins

## 1000 Series Diesel engine - Electropak

### 1006TG2A

100.0 kWm 1500 rev/min  
118.0 kWm 1800 rev/min

The Perkins 1000 Series family of Electropak engines are renowned throughout the power generation industry for their superior performance and reliability.

The 1006TG2A is a turbocharged, 6 cylinder, 6 litre engine. Its premium design features provide economic and durable operation offering the ideal characteristics for electrical power generation.

#### Economic power

One side servicing means reduced service time and cost. Unique Quadram combustion system enables high power output with lower fuel consumption and noise. Rated speed is changeable between 1500 rpm and 1800 rpm allowing standard builds to operate at either 50 Hz or 60 Hz.

#### Clean, efficient power

Operator and environmentally friendly with low noise and rapid startability and low emissions that satisfy TA Luft requirements.

#### Durable power

Maximum cooling efficiency is provided by a gear driven water pump and independent fan drive. Leak free operation is ensured by Viton crankshaft seals and sophisticated controlled swell joints, giving protection in the toughest conditions. Inserted valve seats, oil spray cooled pistons and compact plate cooler give enhanced engine life.

#### Reliable power

Wherever a Perkins' Electropak engine is put into service, it will never be far from the support provided by a global network of 4,000 distributors and dealers, all backed by a parts distribution centre giving 24 hour service, 365 days a year. Suitable for operation in ambient temperatures up to 53°C (46°C if a canopy is fitted). Fuelled starting aid for temperatures down to -20°C.

| Engine Speed<br>(rev/min) | Type of Operation | Typical Generator<br>Output (net) |       | Engine Power |       |       |       |
|---------------------------|-------------------|-----------------------------------|-------|--------------|-------|-------|-------|
|                           |                   |                                   |       | Gross        |       | Net   |       |
|                           |                   | kVA                               | kWe   | kWm          | bhp   | kWm   | bhp   |
| 1500                      | Prime Power       | 102.5                             | 82.0  | 95.5         | 128.0 | 91.0  | 122.0 |
|                           | Standby Power     | 112.5                             | 90.0  | 105.0        | 141.0 | 100.0 | 134.0 |
| 1800                      | Prime Power       | 120.5                             | 96.5  | 113.5        | 152.5 | 107.0 | 143.5 |
|                           | Standby Power     | 132.5                             | 106.0 | 125.0        | 167.5 | 118.0 | 158.0 |

All ratings data based on operation under ISO 3046 conditions using typical fan sizes and drive ratios. For operation outside of these conditions please consult your Perkins contact.

Performance tolerance quoted by Perkins is  $\pm 5\%$ .

Electrical ratings assume a power factor of 0.8 and a generator efficiency of 90%.

Fuel specification: BS2869 Part 2 1998 Class A2 or ASTM D975 D2

Lubricating oil: A single or multigrade oil to ACEAE1 E2 or API CD/SD

Rating Definitions

Prime power = Power available at variable load in lieu of main power network. An overload of 10% is permitted for one hour in every twelve hours of operation.

Standby power = Power available at variable load in the event of a main power network failure. No overload is permitted.

# 1000 Series 1006TG2A

## Standard ElectropaK Specification

### Air Inlet

Mounted air filter and turbo charger

### Fuel System

Rotary fuel injection pump  
Mechanical governor – speed control to BS5514 Class A1,  
ISO 3046-4M3  
Spin-on full flow fuel oil and pre-filter  
Cold start aid

### Lubrication System

Flat bottomed aluminium sump  
Spin-on full flow oil filters  
Oil cooler

### Cooling System

Thermostat controlled cooling system with gear driven water pump  
Fan drive and 22" pusher fan  
Radiator (and piping) with fan guards

### Electrical System

12 Volt starter motor and 55 Amp alternator  
Oil pressure switch and coolant temperature switch

### Flywheel and Housing

Cast iron SAE 3 flywheel housing  
Flywheel to SAE J620 size 10/11

### Mountings

Front engine mountings

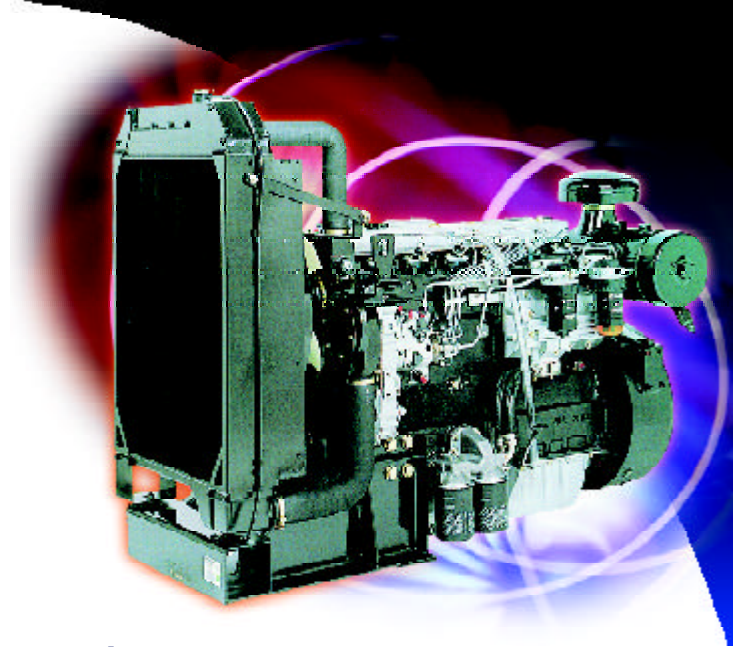
## Optional Equipment

24 Volt alternator  
24 Volt starter motor  
Water temperature gauge and sender  
Heater/starter switch  
Rear engine mountings  
Workshop manual  
Parts book  
User handbook

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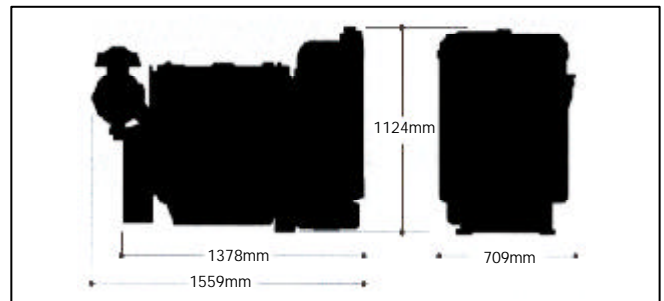
All information in this leaflet is substantially correct at the time of printing but may be changed subsequently by the Company



## General Data

|                                   |                                  |
|-----------------------------------|----------------------------------|
| Number of Cylinders               | 6                                |
| Cylinder Arrangement              | Vertical in-line                 |
| Cycle                             | 4 stroke                         |
| Induction System                  | Turbocharged                     |
| Combustion System                 | Direct injection                 |
| Cooling System                    | Water-cooled                     |
| Displacement                      | 5.99 litres                      |
| Bore and Stroke                   | 100.0 mm x 127.0 mm              |
| Compression Ratio                 | 16.0:1                           |
| Direction of Rotation             | Clockwise, viewed from the front |
| Firing Order                      | 1,5,3,6,2,4                      |
| Total Lubrication System Capacity | 16.1 litres                      |
| Coolant Capacity (inc radiator)   | 27.7 litres                      |
| Total Weight (dry)                | 586 kg                           |
| Total Weight (wet)                | 623 kg                           |
| Length                            | 1559 mm                          |
| Width                             | 709 mm                           |
| Height                            | 1124 mm                          |

| Power rating % | Fuel Consumption Litres/Hour (UK gallons/hour) |              |
|----------------|--|--------------|
|                | 1500 rev/min                                   | 1800 rev/min |
| 110            | 27.1 (5.9)                                     | 31.7 (6.9)   |
| 100            | 24.3 (5.3)                                     | 28.9 (6.3)   |
| 75             | 17.9 (3.9)                                     | 21.7 (4.8)   |
| 50             | 12.3 (2.7)                                     | 15.4 (3.4)   |



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